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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,595

08/23/2005

Jan De Kroon

4662-304

9094

23117

7590

09/18/2008

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EXAMINER

FREEMAN, JOHN D

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

09/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/517,595	Applicant(s) DE KROON ET AL.	
	Examiner John Freeman	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Claim Objections***

Claim 1 is objected to because of the following informalities:

- a typographical error appears in the line where X and Y are defined: "X-B" should read "X=B", and
- a typographical error appears in the equation which describes "F": an extra right square bracket "]" appears in the formula.

Appropriate correction is required.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 4 and 5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4 of copending Application No. 10/520704.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the applications describe multilayer structures that are substantially the same. The instant application claims a multilayer film comprising Applicant's described polyamide layer and another polymer layer, as well as the process of making a similar film, which is substantially the same as a laminate comprising a substrate and a layer of the same polyamide polymer as found in 10/520704.

Art Unit: 1794

Applicants' attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to page 2, lines 30-31 of 10/520704, which discloses the use of a plastic-film substrate, and page 3, lines 11-12, which discloses polyethylene as a compatible material with the polyamide layer, to impart properties, e.g. heat-seal, or barrier properties, to foodstuffs packaging containing the polyamide.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use a plastic-film, and particularly polyethylene, as a substrate in the 10/520704 and thereby arrive at the present invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Cordes et al. (EP 0000363).

5. Citations herein refer to the provided machine translation, unless otherwise stated.

6. Cordes et al. (hereafter Cordes) disclose multilayer films containing polyamide and polyethylene (claim 8). The polyamide comprises ϵ -caprolactam (p1, paragraph 8). Comonomers include adipic and terephthalic acid units, and trifunctional amines (p2, paragraph 2). The quantities of comonomeric units specified by Cordes (p2, paragraph 3, Example 1b; p3 paragraph 4) satisfy Applicant's formula (1). For Example 1b, Cordes discloses a polyamide created with ϵ -caprolactam, adipic acid, and a triamine (p2,

Art Unit: 1794

last paragraph). The Example 1b mirrors Applicant's Experimental Set-Up. Therefore, the examiner takes the position that Example 1b inherently satisfies the present formulas. The examiner notes that Cordes describes a gel-free polyamide, just as Applicant describes (p 2, paragraph 4). A layer of polyethylene is coextruded with the polyamide (p3, paragraph 6). An adhesive layer is between the two layers, but the examiner considers this situation to remain within the scope of the term "adjacent". The film is flattened by rollers (p3, paragraph 7).

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nijenhuis et al. (WO 00/35992) in view of Van Marcke (US 5975359).

9. Nijenhuis et al. (hereafter Nijenhuis) disclose randomly branched polyamides conforming to the formulae outlined by Applicant (p2 ln 29-p3 ln 32). The polyamides are suitable for films and molded articles (p7 ln 13).

10. Nijenhuis is silent, however, with regard to a multilayer film as claimed by applicant.

11. Multilayer films of polyamide and polyethylene are well-known in the art. For example, Van Marcke discloses a laminated sheet (Fig. 3) of polyamide 52 and polyethylene 54 (col 4 ln 14-17). Van Marcke even suggests that one seeking lower melting temperatures should use non-linear polyethylene (col 4 ln 42-45).

12. At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the polyamide layer of Nijenhuis with a polyethylene layer to make a film. Structures comprising polyamide and polyethylene are well-known in the art as evidenced by Van Marcke. They are useful because the polyamide layer is a good gas barrier while polyethylene is a good moisture barrier. It further would have been obvious to one of ordinary skill to try non-linear polyethylene in the course of optimizing such a film; non-linear polyethylene has different rheological and melting properties compared to other forms of polyethylene.

Art Unit: 1794

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification makes no mention of "joining [a] polyamide layer to [a] layer of another polymer" as disclosed in the present claim 1.

Art Unit: 1794

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

17. It is unclear what Applicant means by "joining" the polyamide and other polymer layers as disclosed in the present claim 1. "Joining" could even simply mean laying the polymers atop one another without providing any means of ensuring the layers would remain together.

Response to Arguments

18. Applicant's arguments filed 17 June 2008 have been fully considered but they are not persuasive.

19. Regarding rejections under 35 USC 101 and 112, second paragraph:

20. Applicant's amendments satisfy the requirements of 35 USC 101 and 112. The examiner withdraws the rejections.

21. Regarding Double Patenting Rejections:

22. Applicant argues "the [copending] '704 application relates to a process in which a polyamide is applied to a solid substrate, whereas the invention of the present application relates to a process producing a multilayer flat film" [original emphasis] (p5). Applicant further argues that techniques such as coextrusion are unrelated to solid substrates of the variety contemplated in the '704 application" (p6). The examiner notes "the layer of another polymer" as recited in claim 1 is a solid substrate. Further, the present claims make no mention of specific techniques, such as coextrusion.

23. Regarding rejections under 35 USC 102(b):

24. Applicant's submit that Example 1b of Cordes describes a polyamide wherein the expression $(1/[(F_A-1) \cdot (F_B-1)]) = 0.5$, which is less than $P = 0.998$ (p6). It is unclear how such a value results from an example that comprises the same diacid and triamine as Applicant's given example for a branched polyamide (see p6, lines 6-16 of the present specification). The benzoic acid used in Applicant's example appears to be the only difference between the examples, however, a mono-functional acid such as

Art Unit: 1794

benzoic acid would not affect the formulas of the present claims. Therefore, it is not clear why the polyamide of Cordes possesses a value of P outside the scope of the present claims, while the polyamide of the Experimental Set-UP in the specification does not.

25. The examiner requests clarification as to how the value $P=0.998$ is calculated, just as Applicant provided clarification for the expression $(1/[(F_A-1) \cdot (F_B-1)])$.

26. Regarding rejections under 35 USC 103(a):

27. Applicant argues "Van Marke does not teach that there is a link between uniform layer distribution and the employment of a polyamide according to the present invention," and further that "Nijenhuis does not relate to a multilayer flat film nor to a process of making multilayer flat films, let alone allowing for a wide processing window resulting in higher production rates" (p7). The examiner notes the present claims disclose nothing regarding "a link between uniform layer distribution and the employment of a polyamide according to the present invention," nor make mention of "a wide processing window." Furthermore, given that the combination of Nijenhuis in view of Van Marcke provides a multilayer film as presently claimed, the examiner takes the position that the combination would intrinsically possess the qualities referred in Applicant's arguments.

28. Applicant also argues "[a] person skilled in the art, wishing to increase the production speed of making multi layer [*sic*] flat films would have no incentive to employ the branched polyamide as disclosed by Nijenhuis in the production of a multi layer flat film," and further that "there is no reasonable expectation of success in employing a polyamide layer of the polyamide disclosed by Nijenhuis in the process of making a multi layer flat film to increase the production speed" (p7). The examiner notes that a rejection under 35 USC 103(a) does not need the same motivation as Applicant for the rejection to be proper. The examiner argues that multilayer films containing polyamide and polyethylene were so well-known in the art at the time of the invention one of ordinary skill would easily conceive of the use of Nijenhuis's branched polyamides in such films.

29. Applicant also asserts "it seems as if the Examiner believes that non-linear polyethylene is similar to non-linear polyamide" (p8). Nowhere in the previous Office Action does the examiner take such a

Art Unit: 1794

position. The examiner points to non-linear polyethylene as taught by Van Marcke to meet the limitations of the present claims.

Conclusion

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hudgin '350 discloses the use of branched polyamides resulting from an amine having a functionality greater than 3, and a diacid. Nijenhuis '799 is the 371 national stage entry of Nijenhuis WO '992.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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